

**REMARKS**

By this Amendment, claims 1, 6 and 7 are amended. Claims 1-7 are pending in the application. Applicant respectfully requests withdrawal of the rejection and allowance of the claims in view of the foregoing amendments and following Remarks.

**I. Withdrawal of finality**

The Examiner indicates that finality has been withdrawn in view of Applicant's request for reconsideration of the last Office Action. Applicant thanks the Examiner for the withdrawal of finality.

**II. Claims 1-7 are in proper condition under 35 U.S.C. § 112, 1<sup>st</sup> paragraph**

Claims 1-7 stand rejected under 35 U.S.C. § 112, 1<sup>st</sup> paragraph due to an alleged lack of enablement. More specifically, the Examiner asserts that the specification does not provide sufficient disclosure of a "controller" or the "predefined relationship" for the consecutive channels recited in independent claims 1, 6 and 7. Applicant respectfully submits that the specification provides sufficient disclosure for one of ordinary skill in the relevant art to make or used the claimed combination of features, for at least the reasons discussed below.

**A. *"Predefined relationship"***

The Examiner asserts that the specification fails to provide any detail on how one of ordinary skill in the relevant art might derive a "predefined relationship" as recited in claims 1, 6 and 7. The basis for the Examiner's position appears to be that (a) the specification fails to provide a working example to clarify the meaning of "function," (b) no explanation is provided

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for how one of ordinary skill in the art might determine whether the guard time is “long enough” to enable half-duplex operation, and (c) no mention is made of the manner in which the number of time slots might depend on the “transmission needs.” Applicant respectfully submits that because the specification properly enables “predefined relationship,” claims 1, 6 and 7 are in proper condition under 35 U.S.C. § 112, 1<sup>st</sup> paragraph.

Applicant respectfully submits that the term “predefined relationship” as recited in the claims is properly enabled, and that the Examiner’s grounds for asserting lack of enablement are improper and insufficient under 35 U.S.C. § 112, 1<sup>st</sup> paragraph. For further support, Applicant refers the Examiner to page 7, lines 9-17 of the specification, which provides additional description of the predefined relationship. Also, MPEP §2164.01 states that “a patent need not teach, and preferably omits, that which is well-known in the art.” In re Buchner, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991) Applicant respectfully submits that because the term “predefined relationship” is well-known in the related art, the application need not provide further enablement.

As noted at MPEP §2164.01, the test of enablement is whether the experiment needed to practice the invention is undue or unreasonable. Mineral Separation v. Hyde, 242 U.S. 261, 270 (1916); In re Wands, 8 USPQ 2d 1400, 1404 (Fed. Cir. 1988) Applicant respectfully submits that no undue experimentation would be required to determine the “predefined relationship” as recited in claims 1, 6 and 7. Further, the terms alleged by the Examiner to be non-enabled are not recited in any of the claims, and therefore, none of the claims can be properly rejected based on the grounds provided by the Examiner. However, Applicant has addressed the Examiner’s 35

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U.S.C. § 112, 1<sup>st</sup> paragraph rejections for the purposes of completely responding to the rejection and providing clarity as to the Applicant's position.

With respect to (a) (i.e., the term "function"), Applicant respectfully submits that Applicant is not required to provide working examples of terms under MPEP 2164.02. As noted at MPEP §2164.02, "Compliance with the enablement requirement of 35 U.S.C. § 112, 1<sup>st</sup> paragraph does not turn on whether an example is disclosed." Thus, Applicant respectfully submits that there is no proper basis for his request for the Examiner's request for a working example, and thus, the term "function" is proper under 35 U.S.C. § 112, 1<sup>st</sup> paragraph. See also In re Borkowski, 164 USPQ 642, 645 (CCPA 1970).

Additionally, because the function is defined in more detail at page 9, lines 27-31 of the present application, Applicant respectfully submits that one of ordinary skill in the art would be able to make or use the "function", which the Examiner apparently asserts is related to the "predefined relationship," as recited in claims 1, 6 and 7.

With respect to (b) (i.e., "long enough"), As stated in MPEP § 2164, the Examiner has the burden of proving that a feature is not enabled by the specification, or that undue experimentation would be required by one of ordinary skill in the art to make or use that feature. Otherwise, enablement is presumed. Applicant respectfully submits that one of ordinary skill in the art would understand how to measure guard time, and that through experimentation that is not undue, one of ordinary skill in the art would be able to determine the amount of guard time (i.e., how long) that is required to enable half-duplex mode operation.

Additionally, Applicant refers the Examiner to page 2, lines 12-17 and 32-37, which enable the subject matter to which the Examiner objects. Unless the Examiner has a specific basis for doubting the objective truth of Applicant's specification under MPEP §2164.04, Applicant respectfully requests withdrawal of this rejection.

With respect to (c) (i.e., "transmission needs"), the Examiner asserts that the specification does not explain how the number of time slots depend on the transmission needs. As disclosed at page 9, lines 27-31, the transmission needs are disclosed as:

"the quantity of data to be transmitted by the mobile station, so as to reduce, or to increase, the number of said consecutive channels, depending on whether said quantity of data decreases or increases."

Applicant respectfully submits that the detail provided about the transmission needs is sufficient for one of ordinary skill in the art to make or use the claimed invention. For at least the reasons discussed above, Applicant respectfully submits that the term "predefined relationship" is properly enabled under 35 U.S.C. § 112, 1<sup>st</sup> paragraph.

***B. "Controller"***

The Examiner alleges that the specification provides no enabling detail on how to make or use a "controller" as recited in claims 1, 6 and 7, because Figures 3 and 4 illustrate the controller 3, 6 as a rectangle. However, Applicant respectfully submits that one of ordinary skill in the art would clearly understand how to make or use a conventional controller.

Further, Applicant respectfully submits that the specification provides support for Applicant's position. Applicant refers the Examiner to application page 12, lines 30-33, which state that:

“Since the particular embodiment of the control means (3 or 6) enabling the method as described to operate poses no particular problem for a person skilled in the art, it is not discussed in any more detail either.” (emphasis added)

In this case, Applicant’s specification supports the assertion that no undue burden would be required to make or use the controller recited in claims 1, 6 and 7, and thus, the basic threshold for enablement has been met. As noted in MPEP §2164.01, the test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is undue. In re Angstadt, 190 USPQ 214, 219 (CCPA 1976) Further, the Examiner has not provided any evidence as to why or how one of ordinary skill in the art would be required to perform undue experimentation to produce the controller (which is not a complex device to one of ordinary skill in the art) recited in claims 1, 6 and 7, as required by MPEP §2164.04. It is also noted that the Examiner has provided no reasonable basis to doubt the objective truth of the statements supporting the claims, as required under §2164.04.

Therefore, the Examiner’s ground of rejection under §112, 1<sup>st</sup> paragraph are improper and unsupported, and the Examiner has not met the required burden of proof. Claims 2-5 depend from claim 1 and are in proper condition for at least the same reasons as claim 1. Applicant respectfully requests withdrawal of the 35 U.S.C. § 112, 1<sup>st</sup> paragraph rejection, and allowance of the claims.

**III. Claims 1-7 are in proper condition under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph**

Claims 1-7 stand rejected under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph for allegedly failing to set forth the subject matter that Applicant regards as the invention. More specifically, the Examiner alleges that “identifiable from said authorization channel using a predefined relationship” recited

in claims 1, 6 and 7 fails to describe the nature of the relationship. The Examiner rejects dependent claims 2-5 for the same reason as independent claim 1.

As shown in the foregoing amendments, Applicant has amended the claims to overcome the Examiner's rejections. Further, Applicant has incorporated the Examiner's suggested changes into claims 1, 6 and 7. Thus, Applicant respectfully requests withdrawal of the §112, 2<sup>nd</sup> paragraph rejections. Further, Applicant respectfully submits that dependent claims 2-5 are allowable for at least the same reasons as independent claim 1.

**IV. Claims 1-7 would not have been obvious under 35 U.S.C. § 103(a)**

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) for alleged obviousness over Engel et al. in view of Crisler et al. Applicant respectfully submits that the Examiner's proposed combination of references fails to disclose or suggest all of the claimed combination of features recited in claims 1-7, as required for a prima facie obviousness rejection. Thus, Applicant respectfully requests withdrawal of the §103 rejections and allowance of the pending claims.

Engel discloses transmission authorizations that are transmitted in special channels A, B, C, as illustrated in Figures 2 of Engel. Further all other channels (e.g., M1, M2, M3) are available for data transmission. For further support, Applicant refers the Examiner to column 4, lines 13-23 and column 4, line 65-column 5, line 2.

However, the present invention overcomes the related art problem of Engel by eliminating the need for a special authorization channel, and performs both functions in the same channel.

Applicant respectfully submits that the Examiner's proposed combination of Engel and Crisler fails to disclose or suggest all of the claimed combination of features recited in claim 1. As admitted by the Examiner, Engel fails to teach a system that performs a method in which a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that the transmission channel and the consecutive transmission channels are allocated in the up direction for the following allocation period, as recited in claims 1, 6 and 7. The Examiner further admits that Engel teaches that a set of predetermined channels that are different from the channel used for allocation are all allocated for the same allocation period instead of the following allocation period as recited in claims 1, 6 and 7.

To overcome the aforementioned admitted deficiencies of Engel, the Examiner asserts that Engel suggests that consecutive channels can be allocated. Applicant respectfully submits that while Figure 2 of Engel illustrates allocation information on adjacent channels, Engel does not disclose or even suggest use of the allocation information for the following allocation period as recited in claims 1, 6 and 7. As disclosed at column 4, lines 4-7, Engel explicitly teaches use in the same time period. Applicant respectfully submits that by teaching use in the same time period, Engel clearly teaches away from use in the following time period.

Further, the Examiner proposes to combine Crisler into Engel to cure the admitted deficiencies of Engel. Applicant respectfully submits that the Examiner's proposed combination fails to disclose or suggest all of the claimed combination of features recited in claims 1, 6 and 7. Further, the Examiner states that it would have been obvious to modify Engel such that a

transmission authorization received for a given allocation period determines data allocated in the up direction for the following allocation.

Applicant respectfully submits that when a reference specifically teaches away from a feature recited in a claim, one of ordinary skill in the art would not have been motivated to modify that reference, even in combination with another reference. See MPEP §2141.02, W.L. Gore & Associates, Inc. v. Garlock, Inc., 220 USPQ 303 (Fed. Cir. 1983) Here, Engel clearly teaches to do the opposite of that which is recited in claims 1, 6 and 7 (e.g., same allocation instead of following allocation period). Applicant respectfully submits that under MPEP §2141.02 and the accompanying case law, one of ordinary skill in the art would clearly not have been motivated to make the necessary modifications to produce the features recited in claims 1, 6 and 7.

Further, Applicant respectfully submits that even if Engel was modified to operate for the following allocation period instead of the same allocation period, the functionality of Engel would be destroyed by such a modification. Applicant respectfully submits that Engel can only operate properly when the allocation is made for the same allocation period, because while Engel performs continuous updating, and by the time that the following allocation period is reached, the allocation may be invalid under Engel. Thus, to wait until the following allocation period would prevent Engel from performing continuous updating, which is an essential part of the functionality of Engel.

As noted in MPEP 2143.01, when the functionality of a reference is destroyed by a proposed modification, that proposed modification forms an improper grounds of rejection. See



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also In re Gordon, 221 USPQ 1125 (Fed. Cir. 1984). Accordingly, Applicant respectfully submits that the rejection of claims 1, 6 and 7 based on the modification of the same allocation period of Engel to a following allocation period is improper and should be withdrawn.

As also admitted by the Examiner, Engel fails to teach that the same channel that is used for transmitting the allocation is used for transmitting the data, as recited in claims 1, 6 and 7. To cure that deficiency of Engel, the Examiner takes Official Notice that the transmission of a control signal using a given channel (e.g., time slot) in order to signal that a device is allocated the same channel for transmission of data has been well-known in the art, and that such an arrangement has been well-known as an efficient means to control that would allow other information to be transmitted to the mobile station through the authorization channel because relatively little information would be required to allocate the time slots.

Applicant respectfully submits that under MPEP §2144.03, evidentiary support should be provided where the Examiner takes Official Notice that is used as a grounds of rejection. MPEP 2144.03 is partially reproduced below as a courtesy to the Examiner:

The rationale supporting an obviousness rejection may be based on common knowledge in the art or "well-known" prior art. The examiner may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being "well-known" in the art. In re Ahlert, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970).

...

If justified, the examiner should not be obliged to spend time to produce documentary proof. If the knowledge is of such notorious character that official notice can be taken, it is sufficient so to state. In re Malcolm, 129 F.2d 529, 54 USPQ 235 (CCPA 1942).

...

**If the applicant traverses such an assertion the examiner should cite a reference in support of his or her position.** When a rejection is based on facts within the personal knowledge of the examiner, the data should be stated as specifically as possible, and the

facts must be supported, when called for by the applicant, by an affidavit from the examiner. Such an affidavit is subject to contradiction or explanation by the affidavits of the applicant and other persons. See 37 CFR 1.104(d)(2). Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made by the Board of Patent Appeals and Interferences. In re Selmi, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); In re Fischer, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice).

For further views on official notice, see In re Ahlert, 424 F.2d 1088, 1091, 165 USPQ 418, 420-421 (CCPA 1970) ("[A]ssertions of technical facts in areas of esoteric technology must always be supported by citation of some reference work" and "allegations concerning specific 'knowledge' of the prior art, which might be peculiar to a particular art should also be supported." Furthermore the applicant must be given the opportunity to challenge the correctness of such assertions and allegations. "The facts so noticed serve to 'fill the gaps' which might exist in the evidentiary showing" and should not comprise the principle evidence upon which a rejection is based.). See also In re Barr, 444 F.2d 588, 170 USPQ 330 (CCPA 1971) (scientific journal references were not used as a basis for taking judicial notice that controverted phrases were art-recognized because the court was not sure that the meaning of the term at issue was indisputable among reasonable men); and In re Eynde, 480 F.2d 1364, 1370, 178 USPQ 470, 474 (CCPA 1973) ("The facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amenable to the taking of [judicial] notice.").

If applicant does not seasonably traverse the well known statement during examination, then the object of the well known statement is taken to be admitted prior art. In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). **A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution.** Thus, applicant is charged with rebutting the well known statement in the next reply after the Office action in which the well known statement was made. This is necessary because the examiner must be given the opportunity to provide evidence in the next Office action or explain why no evidence is required. If the examiner adds a reference to the rejection in the next action after applicant's rebuttal, the newly cited reference, if it is added merely as evidence of the prior well known statement, does not result in a new issue and thus the action can potentially be made final. If no amendments are made to the claims, the examiner must not rely on any other teachings in the reference if the rejection is made final.

(emphasis added)

Accordingly, Applicant respectfully challenges, and requests evidence to support, the Examiner's assertions. More specifically, Applicant respectfully requests that the Examiner cite a reference in support of his position that the transmission of a control signal using a given channel (e.g., time slot) in order to signal that a device is allocated the same channel for transmission of data has been well-known in the art, and that such an arrangement has been well-known as an efficient means to control that would allow other information to be transmitted to the mobile station through the authorization channel because relatively little information would be required to allocate the time slots.

Additionally, Applicant respectfully submits that the Examiner's proposed combination of references fails to disclose or suggest that said predefined relationship avoids transmission of a transmission authorization for each of said consecutive transmission channels, as recited in claims 1, 6 and 7.

Claims 2-7 depend from claim 1. Applicant respectfully submits that claims 2-7 are allowable for at least the same reasons as discussed with respect to independent claim 1. Thus, Applicant respectfully requests withdrawal of the rejection and allowance of claims 2-7.

Additionally, as admitted by the Examiner, Engel fails to teach a system that performs a method in which a window is used to determine the allocated transmission channels, as recited in claim 2. The Examiner asserts because a system that performs a method in which a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that the following allocation period inherently employs a "window", as recited in claim 2, the deficiency of Engel can be cured. However, Applicant respectfully submits that

because Engel does not perform allocation for the following allocation period for at least the reasons discussed above, Engel cannot inherently employ a window to accomplish this task.

With respect to claim 3, the Examiner admits that Engel fails to teach a system that performs a method in which the location of the authorization channel is varied to increase or decrease the number of consecutive channels, depending on whether the quantity of data increases or decreases, as recited in claim 3, and takes Official Notice that variation of the location of the authorization channel to increase or decrease the number of channels is well-known in the art for allowing rapid adaptations to changing demands in network resources.

As discussed above, MPEP §2144.03 requires that the Examiner cite references based on Applicant's traversal. Thus, Applicant respectfully requests that the Examiner cite a reference in support of his position that variation of the location of the authorization channel to increase or decrease the number of channels is well-known in the art for allowing rapid adaptations to changing demands in network resources.

With respect to claim 5, the Examiner asserts that if the modification to Engel required for claims 1 and 2 were performed, then it would be inherent that Engel teaches or suggests the features recited in claim 5. As part of this grounds of rejection, the Examiner also asserts that the guard time can be made smaller for acknowledgements than for data transmission due to the relatively small quantity of information transmitted.

However, Applicant respectfully submits that for the reasons discussed above with respect to at least claims 1 and 2, Engel does not teach or suggest the claimed features of claim 5. Further, Applicant respectfully submits that because data is also transmitted on the same channel

as the authorization, the quantity of information being transmitted is larger than normal, and thus, the Examiner's assertion that the guard time can be reduced as such does not apply to the features recited in claim 5.

Thus, Applicant respectfully requests withdrawal of the rejection, and allowance of claims 1-7.

**V. Examiner's response to Applicant's arguments**

At pages 9 and 10, the Examiner responds to the arguments submitted by Applicant in response to the previous Office Action. Applicant thanks the Examiner for clarifying the source of confusion between the first and second Office Actions.

Additionally, the Examiner states that the claims do not recite that only the position of the assignment channels is used, and that the claims do not recited a predefined relationship between adjacent time slots. Applicant has addressed the Examiner's responses in Section IV above. Thus, Applicant respectfully requests withdrawal of the rejection and allowance of the claims.

**VI. Conclusion**

Reconsideration and allowance of all claims are respectfully requested in view of the following remarks. In view of the foregoing, the claims are now believed to be in form for allowance, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below.

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Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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**APPENDIX**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

**The claims are amended as follows:**

1. (Amended) A method of allocating data transmission channels to a mobile station, in particular in half-duplex mode, in a mobile telecommunications network of the type using packet mode and having multiple access by multiplexing transmission channels, in which method the transmission channels allocated to a mobile station, respectively in a “down” direction from the network to the mobile station, and in an “up” direction from the mobile station to the network, can change at each “allocation period”, a transmission authorization received over a transmission channel in the down direction for a given allocation period indicating that said transmission channel is allocated in the up direction for the following allocation period;

wherein a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that not only said transmission channel, also referred to as the authorization channel, but also consecutive transmission channels identifiable from said authorization channel using a predefined relationship, are allocated in the up direction for the following association period, wherein said predefined relationship avoids transmission of a transmission authorization for each of said consecutive transmission channels.

6. (Twice Amended) A mobile station, for implementing a method of allocating data transmission channels to a mobile station, in particular in half-duplex mode, in a mobile telecommunications network of the type using packet mode and having multiple access by

multiplexing transmission channels, in which method the transmission channels allocated to a mobile station, respectively in a “down” direction from the network to the mobile station, and in an “up” direction from the mobile station to the network, can change at each “allocation period”, a transmission authorization received over a transmission channel in the down direction for a given allocation period indicating that said transmission channel is allocated in the up direction for the following allocation period;

wherein a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that not only said transmission channel, also referred to as the authorization channel, but also consecutive transmission channels identifiable from said authorization channel using a predefined relationship, are allocated in the up direction for the following allocation period, said mobile station including:

a receiver that receives transmission channels over said down frames and detects transmission authorizations in the received channels;

a transmitter that transmits transmission channels over said up frames; and

a controller that controls the transmitter and the receiver, so as to enable said method to operate, wherein said predefined relationship avoids transmission of a transmission authorization for each of said consecutive transmission channels.

7. (Twice Amended) A fixed station for a telecommunications network, for implementing a method of allocating data transmission channels to a mobile station, in particular in half-duplex mode, in a mobile telecommunications network of the type using packet mode and having multiple access by multiplexing transmission channels, in which method the transmission



channels allocated to a mobile station, respectively in a “down” direction from the network to the mobile station, and in an “up” direction from the mobile station to the network, can change at each “allocation period”, a transmission authorization received over a transmission channel in the down direction for a given allocation period indicating that said transmission channel is allocated in the up direction for the following allocation period;

wherein a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that not only said transmission channel, also referred to as the authorization channel, but also consecutive transmission channels identifiable from said authorization channel using a predefined relationship, are allocated in the up direction for the following allocation period, said fixed station including:

a transmitter that transmits data in transmission channels over said down frames, as well as transmission authorizations over some of the transmitted channels;

a receiver that receives transmission channels over said up frames; and

a controller that controls said transmitter and said receiver, so as to enable said method to operate, wherein said predefined relationship avoids transmission of a transmission authorization for each of said consecutive transmission channels.